## **ABSTRACT**

The Possible – Implement – Challenge – Kill (PICK) Chart is a Lean Six Sigma tool that was originally developed by Lockheed Martin to categorize their process improvement projects. Generally, a PICK Chart considers the ease of implementing a project along with the expected payoff earned by implementing said project (i.e., Difficulty vs. Impact). The model being presented builds on the generalized PICK Chart methodology. First, a decision maker's risk preference is considered via allocating weights for both "Difficulty" and "Impact" across a broad spectrum of user-defined subcategories. Second, an optimal combination of "Difficulty" and "Impact" is offered and compared to each "Difficulty" and "Impact" score by way of a utility function wherein the Euclidean distance away from the optimal combination is annotated.

Keywords: Optimization, Project Management, Lean Six Sigma, Prioritization, Process Improvement